CLAIMS

What is claimed is:

Sub c' 1.   A method of transmitting digital media content through an extraterrestrial satellite, the method comprising the steps of:

A.   receiving a stream of entire IP packets;

B.   . encapsulating each of said entire IP packets from said stream within data frames with one or more of said entire IP packets with each said data frame;

C.   modulating said data frames into a radio frequency signal;

D.   up-link transmitting said radio frequency signal to an extra-terrestrial satellite;

E.   receiving said radio frequency signal as processed and downlink transmitted from said extra-terrestrial satellite;

F.   demodulating said downlink radio frequency signal into said data frames;

G.   de-encapsulating said data frames to recover said stream of entire IP packets within said data frames; and

H.   outputting said recovered stream of IP packets to a remote computing device.

2.   The method of transmitting digital media content of claim 1 wherein the method includes, after the de-encapsulation step G and before the outputting step H, the step of address filtering respective addresses in the respective recovered entire IP packets.

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3. ~~The method of transmitting digital media content of claim 2 wherein the address filtering step includes selectively determining which of said recovered entire IP packets to output during said outputting step II.~~

4. The method of transmitting digital media content of claim 2 wherein the address filtering step includes at least substantial address filtering according an to an IP routing protocol.

5. The method of transmitting digital media content of claim 2 wherein the address filtering step including at least substantial processing of a plurality of said recovered entire IP packets according to a multicasting protocol.

6. The method of transmitting digital media content of claim 4 wherein the address filtering step including at least substantial processing of a plurality of said recovered IP packets according to a multicasting protocol.

7. The method of transmitting digital media content of claim 2 wherein the address filtering step including at least substantial processing of a plurality of said recovered entire IP packets according to the SNMP protocol.

8. The method of transmitting digital media content of claim 6 wherein the address filtering step including at least substantial processing of a plurality of said recovered entire IP packets according to the SNMP protocol.

9. The method of transmitting digital media content of claim 1 also including embedding at least one receiving system command within at least one said multiplexed data frame, demodulating said receiving system command, and automatically executing said receiving system command at a receiving system processor.

10. The method of transmitting digital media content of claim 9 where said receiving system command comprises an IP packet having a pre-determined IP address associated with said receiving system processor, whereby said IP packet is routed by said receiving system to the receiving system processor.

12. The method of transmitting digital media content of claim 1 wherein the outputting step H outputs the recovered entire IP packets to a remote computer and wherein the method also includes transmitting TCP/IP packets to said remote computer through the Internet backbone for use at said remote computer in cooperation with said recovered entire IP packets. ·

13. The method of transmitting digital media content of claim 12 wherein the method includes, after the de-encapsulation step G, the step of address filtering respective addresses in the respective recovered entire IP packets.

14. The method of transmitting digital media content of claim 13 wherein the address filtering step includes selectively determining which of said recovered entire IP packets to output during said outputting step H.

15. A method of transmitting digital media content through an extraterrestrial satellite, the method comprising the steps of:

A. encapsulating serial entire IP packets within serial data frames with one or more of said entire IP packets with each data frame;

B. multiplexing said serial data frames into a multiplexed data stream;

C. modulating said multiplexed data frame into a radio frequency signal;

D. up-link transmitting said radio frequency signal to an extra-terrestrial satellite;

E. receiving said radio frequency analog signal as processed and downlink transmitted from said extra-terrestrial satellite;

F. demodulating said downlink radio frequency signal into said multiplexed data stream;

G. demultiplexing said demodulated multiplexed data stream generally into said serial data frames;

H. de-encapsulating said serial data frames to recover said entire IP packets with said serial data frames; and

I. outputting a plurality of said recovered entire IP packets onto a communication network.

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16. The method of transmitting digital media content of claim 15 also including embedding at least one receiving system command within at least one said multiplexed data frame, demultiplexing said receiving system command, and automatically executing said receiving system command at a receiving system processor.

17. The method of transmitting digital media content of claim 15 where said receiving system command comprises an IP packet having a pre-determined IP address associated with a receiving system processor.

18. The method of transmitting digital media content of claim 17 wherein the outputting step I outputs the recovered entire IP packets to a remote computer and wherein the method also includes transmitting additional IP packets to a remote computer through the Internet backbone for simultaneous use and processing of the recovered entire IP packets and that additional IP packets on said remote computer.

19. The method of transmitting digital media content of claim 18 also including embedding at least one receiving system command within at least one said multiplexed data frame, demultiplexing said receiving system command, and automatically executing said receiving system command at a receiving system processor.

20. A method of transmitting IP digital media content through an extraterrestrial satellite to a remote IP compatible network, the method comprising the steps of:

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A.   transmitting IP packets from a digital content server system through an extraterrestrial satellite to a remote IP compatible network;

B.   receiving said IP packets at an integrated satellite receiver in communication with said remote IP compatible network and routing said IP packets from a routing processor system mounted within said integrated satellite receiver to a remote IP compatible receiving system in communication with said IP compatible network; and

C.   separately transmitting TCP/IP packets from said digital content server system through Internet infrastructure to said remote IP compatible receiving system.

21.   The method of transmitting IP digital media content of claim 20 wherein the transmitting step A comprises multicasting of said IP packets.

22.   The method of transmitting IP digital media content of claim 21 wherein the routing processor system includes a substantially IGMP compatible mode and said routing step includes routing of said multicast IP packets according to said substantially IGMP compatible mode.